

A HARMONIC-SERIES FILTER

ABSTRACT OF THE DISCLOSURE

In a filtering system, a first input receives a signal contaminated with noise. A second input receives a noise reference signal. Each notch filter in a set of M notch filters is responsive to a corresponding tuning coefficient so as to attenuate a corresponding noise frequency in the signal contaminated with noise. A tuning parameter generator responds to the noise reference signal by generating a tuning parameter corresponding to a fundamental frequency of the noise and tracks that fundamental frequency. A filter coefficient generator responds to the tuning parameter by providing each of the M notch filters with the corresponding tuning coefficient. A gain normalizer adjusts the overall gain of the M notch filters.